

BRUHAT BANGALORE MAHANAGARA PALIKE						
Improvements to roads, drains and other developmental works in ward no- 03 under road development head in Chief Minister Nava Nagarothan grants of yelahanka division.						
Combined Abstract						
List of Roads Under the (Yelahanka 2018-19)						
GO. No	Name of Work					
1517	Improvements to roads and drains at SFS 407 and surrounding areas in ward no:03 Yelahanka Satellite Town sub Division					
1518	Improvements to roads and drains at yelahanka newtown 4th phase and surrounding areas in ward no:03 Yelahanka Satellite Town sub Division					
1520	Improvements to roads and drains at Industrial area, 5th phase and surroundings area in ward no:03 Yelahanka Satellite Town sub Division					
1521	Improvements to roads and drains at balance main and cross roads of Santhosh Nagara, Escorts Engineering layouts and surrounding areas in ward no:03 Yelahanka Satellite Town sub Division					
1522	Improvements to roads and drains at Akshaya Nagara, Muneshwara layout and surrounding area in ward No :03 Yelahanka Satellite Town sub Division					
Item No	Description of work	Unit	Quantity as per Estimation	In Words Rate in Rs.	In Words	Amount in Rs.
1	Removing and resetting of footpath slab	sqm	17,038.60	208.82	Rupees Two Hundred Eight And Paise Eighty Two Only	3558000.45
2	Removing and resetting of kerb stones	M	13,552.00	104.94	Rupees One Hundred Four And Paise Ninety Four Only	1422146.88
3	Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications and as per directoins of the Engineer in charge of work.	Cum	9,588.49	211.79	Rupees Two Hundred Eleven And Paise Seventy Nine Only	2030727.12
4	KSRB 4-1.2 : Providing and laying in position plain cement concrete Cum of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1,4.2	Cum	596.02	5505.64	Rupees Five Thousand Five Hundred Five And Paise Sixty Four Only	3281471.55
5	Providing TMT Bars Fe 500 steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification and as per directoins of the Engineer in charge of work.	T	72.94	72326.98	Rupees Seventy Two Thousand Three Hundred Twenty Six And Paise Ninety Eight Only	5275529.92
6	Providing and laying plain/reinforced cement concrete for side drains Wall & bottom thickness 15cm using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500,1700, 2200. including cost of materials, labour, HOM complete as per specifications.	Cum	1,161.48	7070.20	Rupees Seven Thousand Seventy And Paise Twenty Only	8211895.90
7	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregates @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, for coping. Including cost of all materials, labour, HOM, curing complete as per specifications.	Cum	126.60	5599.98	Rupees Five Thousand Five Hundred Ninety Nine And Paise Ninety Eight Only	708957.47

No	Description of work	Unit	Estimation	Rate in Rs.	In Words	Amount in Rs.
8	Supplying and fixing precast reinforced concrete slab 10 cm thick of mix M20 using 20mm and downsize graded granite metal using reinforcement 10mm dia steel at 150mm C/c both ways cost, transportation, hire charges of machinery, machine cutting the vertical face to get plain even surface etc., complete with all leads and lift conveyance charges, labour charges inclusive of cost of cost of all materials(data Rate enclosed)	sqm	4,620.80	2337.00	Rupees Two Thousand Three Hundred Thirty Seven Only	10798809.60
9	Providing and laying Pre Cast Drain Cover slabs of 250mm thick of mix M20 using graded granite jelly 20mm down size with steel reinforcement, including from work, lift charges, curing and concrete finished surfaces on both side etc. complete and as per drawing and direction of Engineer-in-charge of work (data Rate enclosed)	sqm	290.25	5418.00	Rupees Five Thousand Four Hundred Eighteen Only	1572574.50
10	Providing and fixing Pre cast solid concrete kerb stones of size 450 x 200 x 400 mm made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete as per specifications and as per directions of Engineer in charge of work.	Nos	9,502.00	477.00	Rupees Four Hundred Seventy Seven Only	4532454.00
11	KSRB 5-14.1: Providing and constructing load bearing wall with solid concrete blocks of size 400x200x200mm having block density not less than 1800kg/m3 having a minimum average compressive strength of 5.00 N/mm2 conforming to IS 2185 (Part 1):2005 and constructed with CM 1:4, as per IS 2572:2005 including cost of all materials labour charges, scaffolding, curing, hire charges of machineries etc., complete as per specifications.	Sqm	304.00	984.96	Rupees Nine Hundred Eighty Four And Paise Ninety Six Only	299427.84
12	KSRB15-3.7 : Providing 18mm thick cement plaster in singlecoat with cement mortar 1:3, to brick masonry including rounding off corners wherever required smooth rendering.: Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications	sqm	608.00	298.08	Rupees Two Hundred Ninety Eight And Paise Eight Only	181232.64
13	Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications and as per directoins of the Engineer in charge of work.	Sqm	9,755.00	84.80	Rupees Eighty Four And Paise Eighty Only	827224.00
14	Providing and laying heavy duty cobble stones interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM complete as per specifications and as per directoins of the Engineer in charge of work.	sqm	738.00	1116.18	Rupees One Thousand One Hundred Sixteen And Paise Eighteen Only	823740.84
15	Providing ruled pointing to Coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, HOM curing complete as per specifications.	sqm	52.80	150.52	Rupees One Hundred Fifty And Paise Fifty Two Only	7947.46

No	Description of work	Unit	Estimation	Rate in Rs.	In Words	Amount in Rs.
16	Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications and as per directoins of the Engineer in charge of work.	Cum	713.95	57.03	Rupees Fifty Seven And Paise Three Only	40715.14
17	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/trap/basalt material, mixing by mix in place method by rotavator at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications and as per directoins of the Engineer in charge of work.	Cum.	305.98	1855.00	Rupees One Thousand Eight Hundred Fifty Five Only	567592.90
18	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications and as per directoins of the engineer in charge of work.	Cum	407.97	2001.28	Rupees Two Thousand One And Paise Twenty Eight Only	816462.20
19	Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications and as per directoins of the Engineer in charge of work.	Sqm	2,039.77	6.36	Rupees Six And Paise Thirty Six Only	12972.94
20	Providing and applying primer coat with S.S bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications and as per directoins of the Engineer in charge of work.	Sqm	2,046.48	33.92	Rupees Thirty Three And Paise Ninety Two Only	69416.60
21	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications and as per directoins of the Engineer in charge of work.	Sqm	76,961.20	5.30	Rupees Five And Paise Thirty Only	407894.36
22	KSRRB M500-17. Providing and laying dense graded bituminous macadam do-using 120 TPH capacity Asphalt batch mix plant with sensor paver Gr-I I Cum (50 mm to 75 mm) with 4.5 % VG-30 Bitumen crushed aggregates of specified grading; premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and ialignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision	Cum	870.56	7620.34	Rupees Seven Thousand Six Hundred Twenty And Paise Thirty Four Only	6633963.19

No	Description of work	Unit	Estimation	Rate in Rs.	In Words	Amount in Rs.
23	Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications and as per directoins of the engineer in charge of work.	Sqm	78,197.60	12.72	Rupees Twelve And Paise Seventy Two Only	994673.47
24	Providing and laying bituminous concrete 40mm thick with hot mix plant, using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminous binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015.	Cum	3,127.64	8699.42	Rupees Eight Thousand Six Hundred Ninety Nine And Paise Forty Two Only	27208653.97
25	Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications and as per directoins of the Engineer in charge of work.	Sqm	3,928.75	454.74	Rupees Four Hundred Fifty Four And Paise Seventy Four Only	1786559.78
26	KSRRB M800-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 - DO III Dt 11.06.1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer.	Nos	3,590.83	357.22	Rupees Three Hundred Fifty Seven And Paise Twenty Two Only	1282716.29
27	Dismantling the damaged or collapsed manholes of 1.2M dia., coNickel in shape, and reconstructing the same for the same dimensions, with machine made wire cut brick in CM 1:4 with ordinary portland cement etc. as per design and specifications. The existing ring, cover and CC bedding to be used. For manholes of 1.2M dia and 1.0 M depth	Nos	8.00	3808.20	Rupees Three Thousand Eight Hundred Eight And Paise Twenty Only	30465.60

No	Description of work	Unit	Estimation	Rate in Rs.	In Words	Amount in Rs.
28	Supply and fixing of Retro Reflective Single Arrow Road Name Signboard of size 1600mm x 900mm made out of retro reflective sheeting conforming to Type XI standards of ASTM D 4956 - 09 & as per IRC 67-2012 for full back ground of blue colour & white letters and fixed over 4 mm thick Aluminium Composite Material sheet having minimum 0.5 mm thick Aluminium skin on both sides with back side painted grey colour and fixed over back support frame SS angle of 15mm x 20mm x 1.2mm, supported by 38mm OD stainless steel pipe all round in 304 grade and 2 nos of vertical posts of 50 mm OD stainless steel pipe of 202 grade firmly fixed to the ground by means of properly designed foundation of size 450mm x 450mm x 600mm in 1:1.5:3 ratio cement concrete. The background shall be blue in color with letters and border in white, the item includes earthwork excavation, cost of all materials, loading, unloading, lead, lift, transportation etc., complete, as per direction of engineer incharge of work clause 6.9 of IRC 67-2012 for Type XI retro reflective sheeting from the sheeting manufacturer & a certified copy of test reports from an independent test laboratory conforming to clause 6.7 of IRC 67-2012 including outdoor weather exposure report for the retro reflective sheeting offered shall be submitted by the contractor for technical qualification in the tender.	sqm	12.96	14094.82	Rupees Fourteen Thousand Ninety Four And Paise Eighty Two Only	182668.87
Administrative Sanction for Rs. 1000.00 lakhs <i>Tom. Green only</i> is accorded under head P-3744-011 <i>Navanagarothana - R & D Development</i> Registered as CE No. _____ Subject to conditions contained in enclosed memo No <i>EE/YNK/AS/1815/2019-20</i> Dt <i>7/13/2020</i> <i>[Signature]</i> Executive Engineer						
29	Direction and Place Identification Signs with size morethan 0.9 Size Board: Providing and erecting direction and place identification retro -reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm, 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing.	Nos	24.30	7557.80	Rupees Seven Thousand Five Hundred Fifty Seven And Paise Eighty Only	183654.54

Administrative Sanction for Rs. 1000.00 lakhs
Tom. Gross only
is accorded under head P-3744.013
Nava Nagarothana - R.C.D. De v. Soppa
Registered as CE No. Subject
to conditions contained in enclosed memo
No. EE/YNK/AS/105/2019-20 Dt. 13/12/2020
Executive Engineer

Technical Sanction
Accorded For Rs. 10.00 cr.
Head of A/C. P. H. M. S. 2
CER NO. 216 Dt. 08-11-2019

Total Construction cost	837,50,550.02
GST 12%	100,50,066.00
Cost towards Design Report, PMC / Third Party inspection LS	20,00,000.00
Tender Premium 5%	41,87,527.50
Sub Total	999,88,143.52
Miscellaneous and rounding off	11,856.48
Total	100000000.00



Consultant
Sri Sai Consultants

Assistant Engineer
Ward No-03

Assistant Executive Engineer
Yelahanka Sub-Division

Executive Engineer
Yelahanka Division